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SELECTED SOVIET MILITARY TRANSLATIONS
(Air Force and Civil Defense Materials)

by I. Bondarenko

RETURN TO MAIN FILE

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FOREWORD

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THE SCHOOL AND LIFE

(Following is a translation of an article by Lieutenant General of the Engineering-Technical Service I. Bondarenko in Sovetskaya Aviatsiya (Soviet Aviation), 10 March 1960, page 2.)

ON STRENGTHENING THE TIES BETWEEN THEORY AND PRACTICE

School and life! Those are the two indivisible concepts. Close ties between training and life constitute the chief condition for training highly skilled, ideologically hardened specialists who know their work well and who are capable not only of making full use of modern equipment but also of developing the equipment of the future.

The staff of the Higher Aviation Military School is exerting efforts to ensure a high quality of training and indoctrination of the students and steady improvement of the training process. The training plans, programs, textbooks, and laboratory facilities reflect the present status and the prospects for developing aviation science and technology. Great attention is devoted to the conduct of laboratory and course work, production and repair practice, and to unit on-the-job training and the graduation project.

All this produces results.

For example, the course in machine parts formerly provided that the students calculate shafts by an approximate method. This led to an increase in the safety factor and, consequently, to increasing the weight of the shafts and increasing the consumption of expensive metal. Now a different method is presented in the lectures for calculating shafts, the students are given detailed explanations of the derivations of the formulas for calculating safety factors, and attention is directed to the effect of things which concentrate stresses on the strength of shafts, etc. This knowledge and these skills are suitable for future engineers.

It is not enough for the students to have a general idea of the design and the structure of this or that device or mechanism. It is important to give a thorough understanding of the physical essentials of phenomena which take place in working with aviation equipment.

It is well known that unless the parts of the electrical systems are protected from excess voltage, it is impossible to obtain reliable operation from the airplane during flight. Up to very recent times, however, methods for protecting equipment from excess voltages were presented only in lectures. Now, however, laboratory work has been introduced in the course on the electric power supply of flight apparatus. The students study and test automatic protective devices for preventing excess voltage.

In many disciplines the lectures are combined with work on examples of aviation equipment and the training is tied in closely with the concrete requirements of its use. Even in presenting such courses as mathematics, physics, mechanics, descriptive geometry, etc., the instructors find ways to tie their studies more closely with the problems that they will encounter as engineers.

The general science departments work in contact with the special departments and the latter maintain contact with flight units, enterprises, and design bureaus. This permits bringing training closer to life. The teaching of the general science disciplines has become more responsive to the requirements of special subjects.

Experience shows that training gives the best results when the students understand the significance and the possibility of using the theoretical propositions they have learned in the solution of practical problems. To clarify this idea, let us present an example.

The course in descriptive geometry has, to a considerable degree, an abstract character. But, isn't it possible for the lectures on this course to be tied in directly with the requirements of practical work? It was found that it was possible. Instructors D. M. Orlov and K. S. Kolotov, when lecturing on the evolution of the surfaces of geometrical bodies, for example, began to present examples of approximate methods for evolving the surfaces of the wings and empennage of an airplane. When studying the subject of the normality of a straight line and a plane, they suggested that the students solve problems connected with the deflection of the landing gear (chassi) when they are mounted (uborka) and determine the angle between the plane of the ring of a gyroscope and the plane of the horizon. The lectures began to be received better.

The students must be armed with practical skills from the first days of their studies. That is the way it is done in the physics department. In fulfilling their laboratory projects the future engineers learn how to handle modern electrical measuring and other instruments. In determining, say, the electrodynamic constant, the students not only measure its value, but become familiar with the operation of a sound generator, the aviation compass, and the polarized relay. The course in general scientific theoretical subjects has been passed. The students go on to the following stage-- that of general engineering training. Here the ties between theory and practice have progressed another stride, practical skills are acquired.

in a more intensive manner, and the form of the training becomes more concrete. In fulfilling their laboratory assignments the students are engaged, for example, in adjusting automatic systems, regulating the temperature in a hermetic airplane cabin, stabilizing voltages, and adjusting tracking systems. This work is done immediately after passing a given section of the lectures, not after completing a considerable part of the course as was done previously. With this organization of training, it became possible to conduct laboratory work in a direct manner and to develop practical skills in the students in a more effective way.

The future aviation flight engineer should be a creatively thinking specialist capable of analyzing phenomena and determining the condition of aviation equipment and its readiness for service. Such an engineer can always find malfunctions, discover the causes for their appearance, and apply the most rational methods for eliminating defects.

Let us discuss such a question as damage to the operational capacity of mechanical systems or electric and radio engineering apparatus. Such damage is usually connected with changes in parameters. If the teaching of general engineering disciplines is limited to study of phenomena and processes which take place with normal parameters when the characteristics of the performance of machines and apparatus correspond to established norms, then the student will acquire knowledge only of the properties of this or that unit under ordinary working conditions. There are, however, cases in actual operation when the normal action of the equipment is disrupted by the very smallest malfunctions. This means that the engineer must have the skills of a technical "diagnostician."

Some comrades consider that sudden malfunctions cannot be determined in advance. It is impossible to agree with this viewpoint. The overwhelming majority of the so-called sudden malfunctions actually do not happen suddenly but have been developing for a more or less prolonged period of time. Malfunctions and failures appear "suddenly" because some specialists do not know how to discover them in the making, in the initial stages of their development.

When the students make the transition to their specialized disciplines, the laboratory work is performed at the training airfield and firing range. A TECh (possibly Technical Exploitation unit) was set up with the professorial-instructor staff and the engineering technical component. Laboratory huts of the field type were located in the immediate vicinity of the airplanes on the line. This permitted bringing the studies close to the conditions which prevail in operational units. Individual projects which had been done previously in laboratories were transferred directly to airplanes. The students were able to acquire skills not only in the use of control and testing devices and panels, but also in such procedures as inspecting equipment, checking its efficiency, assembling and disassembling equipment

and preparing airplanes for flight.

The close ties between training and practice make it possible to improve the training of future engineers.

It is gratifying to note the following facts as an example. Officer Ageyev, a graduate of the school, defended his graduation project well. In his new place of service in an operational unit he quickly mastered the work entrusted to him and continued work on his subject. His persistent work was crowned with success. Ageyev's invention received a high mark. Senior technical Lieutenant Stepanenkov, who was assigned to on-the-job training, introduced a number of innovations which improved the operation of the equipment, for which he was commended by the commander.

Merely the first steps have been taken in revising the training. Great efforts will be required to tie the whole training process in with life and to raise still higher the quality of the training of aviation engineers who will be capable of making skillful use of modern aviation material.

- END -

VERTICAL MANEUVERS OF HIGH-SPEED AIRCRAFT

(Following is a translation of an article by Engineer Lieutenant Colonel A. Tarasenkov, Instructor and Candidate of Technical Sciences, in Sovetskaya Aviatsiya (Soviet Aviation), 12 March 1960, page 2.)

Zooming, diving, and wave paths... Let us examine some peculiarities of the dynamics of the flight of high-speed airplanes in going through these vertical maneuvers.

Zooming

Zooming is used to gain altitude quickly or to decrease speed. It usually consists of two curved sections, the entry and the exit, and also a section of straight-line flight.

Gaining altitude by zooming is accomplished partly by the excess thrust over resistance and partly through loss of kinetic energy. At altitudes below the static ceiling, the total energy of flight usually increases during zooming. Upon exit at dynamic altitudes exceeding the static ceiling, the energy is decreased; that means that altitude gained here only through loss of speed.

The increment in altitude can be determined approximately by dividing the difference in the squares of the velocities at the beginning and the end of zooming by 20. The velocities should be given in meters per second. For example, let us consider subsonic flight with initial speed of 300 and a terminal velocity of 200 meters per second. We shall find that the gain in altitude is 2,500 meters. In another example let the speeds be supersonic -- the initial speed 600 and the terminal speed 400 meters per second. As in the first example, the initial speed is $1\frac{1}{2}$ times the terminal speed. Here the gain in altitude amounts to 10,000 meters, that is, four times as great as the gain in the first case. These examples indicate the great effectiveness of zooming done by supersonic airplanes.

In our approximate calculations we assumed that the thrust of the engine was in equilibrium with any resistance. If this were so, then the gain in altitude would not depend upon the inclination of the zoom, but would be determined solely by the ratio of the initial and the terminal speeds. We shall come to a practical conclusion: if the terminal velocity is given, the altitude of exit from the zoom depends but little on the method of piloting, while the time required is shorter when the zoom is steeper. However, the horizontal projection of the path is shorter, and therefore zooming is not suitable for overtaking other planes.

Entering a steep zoom does not give rise to special difficulties, since the reserve of lifting force is usually great here. Thus, entering it does not offer great complications. In order that the curvature of the path may turn down, it is essential that the weight component exceed the lifting force. Therefore, the overload at the exit from the zoom should be less than unity or even negative. However, negative overloading is not borne well by the human organism. At times it is recommended that the airplane be turned "wheels up" at the exit from a zoom. Then it would be possible to make use of positive overloading for the curvature of the path. It is understood that such piloting is difficult and scarcely attainable.

Diving

Diving is used for rapid descent of the airplane or for increasing its speed. Like zooming, it consists of curved entry and exit sections and also a section of straight-line flight.

Entering a dive presents some difficulty and is accomplished by different methods. The simplest of these is to make the entry from horizontal flight. Here the curvature of the path downward is accomplished by decreasing the lifting force (overload) clear down to negative values. With a positive or zero overloading, however, the radius of entry is intolerably large. When the overloading is equal to zero, the initial radius of entry is determined by dividing the square of the speed by ten. For example, with a speed of 300 meters per second, the radius of entry is 9 kilometers. The loss of altitude upon entry into a steep dive will be on the order of 10 kilometers. It is understood that such a method of entry is not suitable for high-speed airplanes.

The creation of high values of negative overloading when entering dives is inadmissible. Even with small negative overloading, it is difficult to decrease the radius of entry.

There is still another shortcoming in entering a dive from horizontal flight--the poor visibility of a ground target at this time. Improvement of field of vision is achieved by entering the dive from a turn. Here the airplane is flying with a positive overloading and bank. With banking of 90 degrees, for example, the curvature of the trajectory downward will be precisely the same as for zero overloading. But zero overloading for high-speed airplanes means excessive large radii and loss of altitude when entering steep dives. Thus, an entry from a turn with banking angles up to 90 degrees will not yield any material improvement. A radical decrease in loss of altitude can be achieved by entering a dive from a half-roll. The airplane is put into an ordinary half-roll and when the angle of inclination of the path reaches zero, the plane is rotated again about its longitudinal axis by 180 degrees.

In a steep dive the speed increases rapidly at first and might exceed the limit. Therefore, it is necessary to use flaps and decrease the thrust of the engine. For example, if one lowered the flaps and set the engine to minimum power, the speed might not reach the limit speed even in a prolonged steep dive, and as the plane approached the

earth it would decrease.

After making its exit from the dive, the airplane should have some margin of altitude (Ngor.) which guarantees flight safety (refer to the figure). Let us assume that this margin does not depend upon the angle of the dive (steep glide). Then we see, according to the figure, that the flatter the path, the farther from the target one must begin to make his exit from the dive. However, if the angle of the dive is great, then it is essential to take into account the altitude upon exit. In vertical dives it is approximately equal to the radius of curvature of the path. There is a certain optimal angle at which the distance to the target is minimal. It depends upon the ratio of the safe altitude for horizontal flight and the radius of the path at the exit.

It may be seen from the drawing that when the ratio of the radius to the altitude is equal to three, the optimal angle is about 50 degrees. If we decrease the safe altitude for flight or increase the radius of the path, the optimal angle becomes smaller. High-speed airplanes have large exit radii, and therefore the optimal angles of inclination of the path are small.

On the exit from a dive, the angle of attack attains large values. This leads to the phenomenon of "settling." Let the angle of attack at the exit from a dive be 10 degrees at a speed of 300 meters per second. This means that if the chord of the wing assumes a horizontal position, the velocity will be directed 10 degrees downward and the rate of vertical descent will be more than 50 meters per second. Consequently, when the flyer has an impression of horizontal flight due to the orientation of his plane, he is really continuing an intense descent. It is necessary to take this peculiarity into account when exiting from dives at low altitudes.

Wave Paths

Maneuvers in the vertical plane along wave-shaped paths have been used for a long time in flight practice. For example, when overtaking an airplane at the same altitude, a maneuver downward along a wave path was used even some time ago. The fighter began a dive which would increase its speed, then exited from the end of its zoom at the altitude of the target. The average speed in this maneuver would be greater than in horizontal flight.

Maneuvering along wave paths is of particular importance for supersonic fighters, when it is essential to achieve rapid acceleration. Suppose the airplane is flying at near-sonic speed at an altitude of 11 kilometers and it is essential to accelerate as rapidly as possible to the maximum speed at that altitude. From the standpoint of mechanics this acceleration means an increment in the energy of flight. At the end of acceleration the kinetic energy should be higher than the initial value.

Now, how shall we select the flight path which will ensure the most rapid accumulation of energy? The procedure is as follows. At

first it is necessary to put the plane into a descent and quickly to accelerate to the speed at which the thrust of the engine is at a maximum. Then one begins to climb at this speed and gains altitude greater than the target altitude. Upon completing this maneuver, it is necessary to put the plane into descent again so that it will be accelerated to the maximum speed at the target altitude.

The maneuver presented here is motion along a wave-shaped path. The time required for accelerating to maximum speed in this maneuver will be noticeably less than in horizontal flight.

Flying personnel who make skillful use of the properties of supersonic airplanes when going through vertical maneuvers will be able successfully to fulfill varied flight assignments.

FIGURE APPENDIX

$$\frac{R}{N_{\text{gor}}} = 3$$



- END -

NEW EQUIPMENT AND FLIGHT CONTROL

(Following is a translation of a newspaper article by Major General of Aviation I. Musiyenko, Hero of the Soviet Union, in Sovetskaya Aviatsiya (Soviet Aviation), 24 December 1959, page 2.)

After receiving permission from the flight control officer, Lieutenant Mikhoyev taxied toward the take-off point. The airplane which had taken off just before had left a cloud of dust behind it and the young flyer could not orient himself. He mistook the lights of a taxi-way for the lights of the landing strip and did not turn his plane in the proper direction. The lieutenant reported readiness for take-off without having noticed his mistake.

"I authorize take-off," laconically replied the flight control officer.

Mikhoyev opened the throttle of his engine and started to take off. Only through a lucky combination of circumstances was he able to make the take-off without colliding with obstacles.

How could such an extraordinary thing happen? The fault of the flyer must not be minimized, although one could give him some leeway on account of his youth and inexperience. The chief fault should be considered to rest with the flight control officer. Without finding out whether the airplane was pointed in the right direction and without waiting until the dust cloud raised by the previous take-off had scattered, he had authorized a take-off at an angle of 35 - 40 degrees to the VPP (vzletno-posadochnyy punkt--landing strip), toward a line of fuel tanks and enlisted men's quarters!

Of course, this episode was not typical. I have mentioned it only so that the reader may see more clearly what irresponsibility on the part of the flight control officer could lead to. It is a very good thing that such events are rare. Still, some flight control officers permit less glaring and important mistakes at some time in their work!

Now, here is something I should like to discuss in the pages of our aviation newspaper, to discuss resolutely, daringly, and at the top of my voice. There must not be such irritating mistakes in our work; they must be uprooted once and for all. Without any exaggeration I can say that every act of negligence on the part of a flight control officer sets up the prerequisites for an accident in flight. An incorrect evaluation of the situation, an unfounded decision, a

poorly-stated command to a plane crew in the air--all these and many other errors in flight control immediately become causes for serious misunderstandings.

How then, can we explain those shortcomings, of which we still unfortunately can not rid ourselves? A large number of the mistakes made by flight control officers undoubtedly stem from the officers themselves. Not every officer who has been entrusted with this responsible duty is permeated with a feeling of responsibility for the fulfillment of his duties. Negligence by persons in such posts usually gives rise to all sorts of miscalculations and omissions. The example cited is particularly good evidence of this.

On the other hand, I believe that there are cases in which officers who have not been sufficiently well trained in this serious and difficult work have been made flight control officers. Let us suppose that a person has been nominated for a certain post; somehow it is thought that as soon as he has been placed in that new post that means he has already "matured," say, as a flight control officer. In fact, however, it doesn't always work out like that. Can we say that a former deputy squadron commander who has just been made a squadron commander can show skill in flight control if he has had no experience in flight control? Not every officer who has come into a unit from the Academy has had that experience.

Flight control officers must be trained. But, how to organize this training? With us, for example, officers whose duties will call for acting as flight control officers are first given the opportunity to observe how more experienced commanders control plane crews in the air. Being present in the command post, the future flight control officer sees how his senior comrade acts in different cases and different circumstances, how he gives commands, how he uses radio engineering apparatus at his disposal, etc.

After taking charge himself, but still under the control of the senior chief, the young commander has a more confident attitude toward flight control. It is well to entrust such an officer initially with controlling small groups of airplanes and not complicated ones, and under simple weather conditions. In this respect it is important to observe our basic principle -- "from the less difficult to the more difficult."

It is understood, of course, that it is necessary to work constantly with flight control officers who have already accumulated experience and to help them to perfect their mastery of their work. Such forms of training as group exercises are widely used in our units. In our opinion, they are of great use. In the process of such exercise which call for consideration of complicated factors, the flight control officer learns to evaluate situations which may arise in the air quickly and correctly.

We in aviation have already developed forms of training for all

categories of flight and technical personnel which have, so to speak, thoroughly justified themselves in practice. But how shall we better organize the training of officers in such responsible duties as flight control?

The flight control officer is not limited to a microphone and an armchair. He has complicated equipment and apparatus at his disposal. He has a large number of persons under his command--navigators, flight engineers, communications personnel, weather specialists, etc.

The technical means of control have become markedly more complicated with increases in the speed and operational altitudes of our airplanes. How shall we use them more effectively?

Perhaps the time has come for "tearing away" our flight control officers from their microphones and armchairs? I foresee that some readers will raise objections to this proposal. Still, I think that it will be expedient to do this. In the first place, when the flights are intensive, the attention of the flight control officer inevitably weakens toward the end of the period of numerous take-offs, whether he wills it or not. It is simply physically impossible for him to maintain such high tension. The work of the flight control officer is somewhat like that of an orchestra director, but still more complicated and responsible--everything is in the director's field of view, but this is not true of the flight control officer.

However, this is not the basic argument in favor of my proposition.

It seems to us that the flight control officer should, in the second place, be able to be with the means for flight control day or night-- at the landing or the scanning radar, to organize the precise work of the alert crew, to analyze when necessary this or that mistake with flight personnel, etc. When he is absent, the landing control man should watch take-offs and landings. The duty navigator will observe flights of plane crews at considerable distances from the air field.

In a word, it is necessary to think over the propositions stated here and to weigh all pros and cons.

The more reliable flight control is, the higher the degree of organization on the ground and in the air. Anybody who flies knows well how confident he feels in the air when an experienced aviator is following his flight. He acts decisively, does not lose his head, and can always help you find a way out of a difficult situation. Of course such trained officers who cope skillfully with the responsible duties of flight control officer are numerous in our units. In one case, the engine in a plane piloted by Senior Lieutenant Nikorkin stopped at an altitude of 5,000 meters. The flyer immediately informed the command post of what had happened. The flight control officer, Major Kudimov, who knew well the personal traits of his subordinate, quietly ordered him to head for the air field, to establish the most advantageous gliding speed, and to try to start the engine. This command restored confidence in a good outcome for the flight. True, Nikorkin did not

succeed in starting his engine. Due to the proper instructions and advice given by Major Kudimov, however, the flyer landed successfully at his own air field.

There are many such examples.

As is well known, flight control officers are surrounded by a multitude of duties. Consequently, it would be possible to raise many other questions connected with their work. But it is simply impossible to do all this in one brief article, and I did not set myself such a task. I hope that my readers will continue the discussion I have started since its theme is real and very important. The conduct of flight training without accidents and their prerequisites depends to a large extent on the activities of the flight control officers. And this is one of our first-priority tasks.

This article by Comrade I. Musiyenko is being printed as a discussion.

Editorial Staff

- END -

CORRECTIONAL TURNS ON THE TARGET

(Following is a translation of a newspaper article by Colonel Yermolayev, Instructor and Candidate of Technical Sciences, in Sovetskaya Aviatsiya (Soviet Aviation), 3 March 1960, page 3.)

Our editorial staff received a letter from Captain V. Khomichov in which he requested an explanation of the rules for dropping bombs when making correctional turns on the target. The reply to Comrade Khomichov is published below.

As is well known, the lateral course of a plane should be corrected not later than 5 - 7 degrees prior to the time that the sighting angle equals the aiming angle.

However, small errors in the lateral course of the airplane can be noticed only at comparatively small distances from the target, which makes it necessary to make correctional turns on the target immediately before dropping the bombs.

Therefore, the question at present is: is it possible to correct the lateral course clear up to the time of dropping bombs, which is practically analogous to dropping the bombs in the turn or when entering the turn?

When horizontal and straight-line flight is established, one can assume that the trajectory of the bomb always lies in the vertical plane which contains the vector of the air speed of the airplane at the time the bomb is dropped, and in judging the direction of the path of the bomb it is sufficient to know the direction of the vector of the air speed of the airplane at the time of release.

However, even when horizontal, straight-line flight has been established, this assumption does not correspond to reality since, as a result of irregular thrust from the engine, incomplete aerodynamic symmetry of the airplane, and a number of other causes, the vector of the air speed deviates to the side from the longitudinal axis of the airplane, forming an angle of sideslip. This angle is not constant, but varies with the magnitude and the direction of the vector of the air speed.

In case horizontal, straight-line flight has been established, the values of the angle of sideslip are small and they are usually neglected.

In setting the lateral course, small-angle turns are made with the rudder and tighter turns are made with the rudder and the ailerons.

When making turns with the rudder alone, one observes skidding to the side, that is, the airplane skids in a direction opposite to the turn. To bring the airplane out of the turn, the rudder is set to a neutral position. The turn is stopped, but the consequences of the turn in the form of crabbing by the airplane and fluctuations in the vector of air speed which appear when the skidding angle is eliminated continue for some time.

When turns are made with the rudder and the ailerons, and providing that these controls have been properly coordinated, the plane will move in the turn without skidding to either side of the arc of the turn; thus, the vector of its air speed will coincide with the direction of the longitudinal axis and will always be on the tangent line along the arc.

In this case, however, when the airplane is put into a turn, there will be some skidding due to inertia. In practice, some skidding is seen even when the turn has been established because of the impossibility of absolutely precise coordination of the rudder and the ailerons. Skidding to both the inside and the outside of the turn can occur, depending upon the amount of error in handling the controls.

The character of the changes in the direction of the vector of the air speed in making turns on the target makes it possible to come to the following conclusions:

Releasing a bomb at the time the airplane enters the turn does not remove the lateral error in bombing which might occur in bombing without turning the airplane on the target.

Releasing a bomb when making a turn does not guarantee that the bomb will hit the target even when the sights are lined up with the target, but gives rise to an error in bombing due to skidding that has not been taken into account.

It should be noted that the effect of the turn of an airplane on the lateral deviation of a bomb has been exaggerated somewhat. Some bombardiers believe that releasing bombs in a turn will lead to significant additional lateral deviation of the bomb path. In the majority of cases, this occurs as a consequence of incorrect evaluation of the initial deviation of the vector of the air speed from the target direction. This is all the more true because, after turning the longitudinal axis of the airplane on the target prior to bombing and, except for the orientation of the longitudinal axis, being unable to judge the direction of the vector of the air speed, the bombardier expects to see the bomb explode on the target, while the vector of the air speed may deviate from the longitudinal axis by a significant angle at the time of bombing.

However, when making turns on the target, it is possible that there will be cases of small additional lateral deviations of the points on which the bombs drop to the outside of the initial direction of the vector of the air speed. Cross action of the controls and the

effect of the place of suspension of bombs in an airplane can be causes for this negative phenomenon.

Cross action of the controls consists of the fact that under certain flight conditions the movement of the controls to bring the airplane into the turn can cause the airplane to turn to the opposite side. Crossed controls may occur with insufficient coordination of the controls when the airplane begins a turn and, in the majority of cases, when the airplane is controlled manually.

The effect of the place of suspension of bombs is shown when the machine is put into a turn, or when it is held in a turn, as every point from which a bomb is suspended will have its own velocity relative to the air which differs from the air speed of the plane, due to the rotation of the airplane about its longitudinal and vertical axes. This can cause an additional deviation of the bomb to the inside or the outside of the turn.

It should be mentioned too that releasing bombs during a turn will also cause an error in bombing in respect to distance, the basic cause of which is failure to maintain horizontal flight and changes in the air speed.

All the foregoing makes it possible to recommend how the lateral course should be managed with modern airplanes.

It is desirable to correct the lateral course of the airplane not later than 5 - 7 degrees prior to coincidence of the angles of sight and aim.

In case a deviation of the course from the target is discovered shortly before bombing and it is impossible to make another run on the target to decrease the lateral error, it is possible to make a corrective turn on the target.

It is not expedient to begin the corrective turn on the target immediately before bombing, that is, 1-2 degrees prior to the angle of aim, since this will not decrease the lateral error in the best case and may increase it in the worst case.

To shorten the fluctuations in the vector of the air speed when making the correctional turn with the aid of the automatic pilot it is expedient to proceed as follows: after seeing the course converge with the direction of the target, rotate the turn handle of the bomb sight smoothly in the proper direction so that the arrow of the KIP (possibly Kontrol'na-izmeritel'nyy pribor -- control and measuring instrument) deviates by one or two divisions from the zero position and press the lock of the autopilot coupling.

In the brief time (several seconds) remaining before bombing, the vector of air speed will return smoothly toward the target, which will lead to a decrease in the lateral error in bombing.

- END -

CLASSES CONDUCTED IN ESTONIAN DOSAAF CLUBS

(Following is a translation of a newspaper article by M. Agarkov, Instructor in Underwater Sports, in Sovetskaya Estoniya (Soviet Estonia), 12 February 1960, page 4.)

On the Sea

The number of persons studying in circles and groups has increased noticeably recently in the Tallin Sea Club of the DOSAAF. Competitions are being held more frequently in water sports. The Underwater Sports Section has won great popularity among the young people. Particularly great progress has been achieved by DOSAAF members Dina Untera, Vladimir Petrov, Mikhail Gusak, Koyt Valdru, and others. They have been awarded titles of DOSAAF instructors in underwater sports ranks. Comrade Gusak organized a section of underwater sports in the Mercury Rectifier Plant imeni M. I. Kalinin, and Dina Untera another in the Geological Institute of the Academy of Sciences Estonian SSR.

Ship model makers led by Vladimir Filanchuk have achieved progress. Fast models of yachts, tankers, passenger ships, and sailing vessels built by model makers Yevgeniy Lyutov, Ants Uybo, and Sergey Stepanenko have repeatedly won first prizes in city and republic competitions.

Twenty-seven sports drivers of scooters and motorboats have been trained and graduated in the Tallin Sea Club already this year. Under the leadership of DOSAAF Instructor Lembit Kaasik, the motorboat sports drivers have been building sports motorboats and scooters.

Ever-Larger Wings
An airplane rose into the air. On board it were DOSAAF instructors in parachute sports who had arrived for the competition. The machine gained altitude. Now, several small dots separated from the airplane, and in an instant parachutes blossomed out in the sky.

Several DOSAAF instructors in parachute sports had fulfilled their routine norms that day. They were student of the second class of the Tartu Middle School, F. Alatskivi, and Kh. Tutsu, student of the second class of the 21st Middle School of Tallin. Mil'vi Saar, three times champion of Estonia in parachute sports, made her 60th jump that day and Instructor Raymond Rood his 200th.

In the near future the Tallin Air Club will organize courses for parachute sportsmen of the first rank.

Meeting in the Ether

Classes of the Tallin DOSAAF Radio Club are held on two floors of the club. They are equipped with text material, visual aids, and various apparatus. The club is crowded in the evenings. Young men and women study radio and telegraph work here under experienced instructors. In 1959, the club fulfilled its obligations by more than 1½ times in training radio operators. Forty amateur radio stations were opened in the republic last year, raising the total to 90. The number of amateur radio stations is continuing to grow. At the All-Union Radiotelephone Contests held on the night of 24 January 1960, one of the best places in the republic was won by the secretary of the Tartu Radio Club, Karl Kallemaa. The engineer radio amateurs Enn Louk and Toomas Tomson and a student of the Tallin Polytechnical Institute, Kal'yu Sopp, achieved high accuracy in receiving and sending.

Twelve amateur radiotelephone stations of the republic participated in the international radiotelephone competition organized by the American Radio Amateurs' Society. The competition began on the night of 7 February. Only radio amateur sportsmen of the first rank participated. This important contest was headed in our country by the chief of the radio station of the radio club, Comrade Toomela, a student of the fifth class of the Polytechnical Institute.

FIGURE APPENDIX

In the photograph: Diver Vello Suurvyali is preparing to descend into the water.

Photo by A. Kruchinin

- END -

FRUITFUL COLLABORATION OF RED CROSS AND DOSAAF

(Following is a translation of a newspaper article by A. Glushkov, Chairman of the Rayon Committee of the DOSAAF (City of Fatezh, Kurskaya, Oblast), in Sovetskiy Patriot (Soviet Patriot), 15 March 1960, page 2.)

In this article I should like to tell of some of the experience gained in joint work of our rayon committee with organizations of the Red Cross Society.

Not so long ago we held an enlarged plenary session of the rayon committee at which the question was raised as to progress made by the population in respect to the program of "Ready for Civil Air Defense," First Degree. The heads of many establishments and the chairman of rural soviets were present at this plenum.

It was found in the course of the discussion that the situation was better on the kolkhozes than in the enterprises of the rayon center.

It was this fact that Comrade Ostretsov, chairman of the rayon committee of the Red Cross Society and member of the rayon committee of the DOSAAF, brought to the attention of those who participated in the plenum.

"The hemp factory, the truck pool, and the rayon consumers cooperative," he said, "are next door to the rayon committee of the DOSAAF, but the work of training the workers in civil air defense there is going poorly. If this goes on, we shall not fulfill the task on time."

"But you will help," were the replies from the hall.

"Here is the help I want to extend," answered Comrade Ostretsov.

The help rendered by the rayon committee of the Red Cross Society in carrying out civil defense courses in city enterprises turned out to be very effective. The question of the status of training the population in civil air defense was placed before the rayon conference of medical workers for discussion at the initiative of our rayon committee. It was discussed also at the labor union conference. Scores of physicians and medical workers gave lectures and talks. Comrades Ostretsov, Lunev, Proshukalova, and Golotsukov helped to organize regular courses in the enterprises of the city.

This is no isolated fact. Our rayon committees are working in close collaboration, in accordance with a joint plan.

The rayon committee of the Red Cross has no staff workers, but it still renders daily aid to the organizations of the DOSAAF. The rayon committee has enlisted the services of all physicians and medical workers of the rayon, without exception, in the work of training the population in civil air defense. And that is no small number -- 145 persons.

According to the existing situation, the training of DOSAAF instructors is guided chiefly by the Civil Air Defense (PVO) school. Depending upon our own resources and those of the organizations of the Red Cross, we have retained 300 DOSAAF instructors, 85 of them medical workers.

The activities of the Red Cross organizations together with our own are participating constantly in training and running contests in civil air defense and in organizing gas chamber courses.

Physicians, doctor's assistants, and nurses who are DOSAAF instructors go out into the primary organizations and give talks on medical and public health problems of civil air defense. Medical workers who are activists of the Red Cross Society give talks before showing movie films on DOSAAF subjects.

Evenings of questions and answers enjoy great popularity among the population of the city of Fozzh.

The close collaboration of the organizations of the two societies is yielding fruitful results. The training of the population in the program of "Ready for Civil Air Defense," First Degree, is almost completed in the rayon.

- END -

RAISE THE LEVEL OF ORGANIZATIONAL WORK

(MOSCOW CITY DOSAAF CONFERENCE)

(Following is a translation of a newspaper article by F. Myagkov in Sovetskiy Patriot (Soviet Patriot), 17 February 1960, page 2.)

One of the leading places in the life and activities of our society rightfully belongs to the Moscow organization of the DOSAAF. Citizens of Moscow have started many patriotic projects and are the initiators of different sports competitions. Many organizations of the DOSAAF make use of the rich experience in mass organizational, agitation-propaganda, and sports work of the Moscow groups of the society.

In the last two years the city organizations of the DOSAAF have achieved significant progress under the leadership of party organs. In the report made by the chairman of the city committee, A. Sergeyev, and in the speeches given by delegates to the Fourth City Conference which was held recently, it was noted that the basic content of the activities of DOSAAF organizations was the organizational work of the committee to mobilize DOSAAF members to carry out the tasks of the society set forth in the resolutions of the 21st Congress of the CPSU. Tens of thousands of workers have entered the DOSAAF recently, and many are actively participating in its many-sided work. The training of technical specialists has increased by 1½ times over the 1957 level. A total of 4,500 DOSAAF instructors are training drivers, motorcyclists, radio operators, and other specialists essential to the national economy. In two years they have developed 68 masters of sport and more than 50,000 ranking members (razryadniki).

DOSAAF sportsmen of the capital have taken part in all the All-Union competitions held by the Central Committee of the DOSAAF. Last year alone the Moscow members established 16 All-Union records in airplane, glider, parachute, and model making sports.

However, the results which were noted at the conference constitute only one of the steps toward the new frontiers which stand before the city organization.

The chairman of the Kiyevskiy Rayon (of Moscow City) Committee of the DOSAAF, G. Generalov, stated in his speech: "The great and responsible tasks before the DOSAAF require that we raise the level

of organizational work. The workers of the city committee must spend more time not only in the rayon committees, but also in the primary organizations, must expand the ranks of the activists, and must give them practical help on the spot."

The chairman of the primary organization of the society in the "Stal'konstruktsiya" Plant of Leninskiy Rayon, A. Rubaylov, spoke on how important it was to strengthen the DOSAAF committees with good organizers. More experienced workers are elected to the committee for four years. The activists work energetically and get good results. "But, no matter how effective the committee of the primary organization may be," said Comrade Rubaylov, "it still needs daily guidance from the rayon committee of the DOSAAF. But what sort of help can be expected of the Leninskiy Rayon committee if the chairman is changed from year to year? Right now there is none."

The chairman of the primary DOSAAF organization in the 36th Middle School in Frunzenskiy Rayon, I. Verba, criticized the city committee of the society, stating that it pays little heed to propagandizing scientific knowledge among school and student youth. He suggested setting up coordinated training points where the students would acquire the specialties of driver, motorcycle, and radio operator and sending well-trained DOSAAF instructors and masters of sports to the schools to give practical aid in conducting study circles and sport teams.

There was a great deal of discussion at the conference concerning shortcomings in the development of technical types of sport. Moscow city and rayon clubs of the DOSAAF have not yet become genuine organizers of sports work even though they have at their disposal a good staff of trainers and DOSAAF activists.

The chairman of the DOSAAF committee of the Moscow Power Institute, B. Kocherga, stated: "The student youth leans toward technical types of sport, but we simply cannot wholly satisfy their demands because we do not have the necessary materials. We need sports motorcycles, radio sets, and other property, but the city committee gives us little help in procuring them."

The deputy chairman of the Moscow City Council of the Union of Sports Societies, A. Borisov, directed a serious reproach at the city committee of the DOSAAF in his speech. He stated that the training of wearers of the GTO (Gotov k trudy i oborone--Ready for Work and Defense badge, and the physical training of students of organizations of the Union of Sports Societies and of the DOSAAF were being conducted in a disconnected manner. He stated that it was necessary to conduct contests jointly and to make fuller use of the base of the sports organizations.

Master of Sports G. Voynova raised a number of questions concerning the development of water and motor sports.

"I, like many other sportsmen, cordially welcome the call of the masters of sports and first-class sportsmen to render assistance to young sportsmen. This year I am obligating myself to train five ranking members and 25 medalists," she said.

The first deputy chairman of the Central Committee of the DOSAAF, S. S. Shatilov, noted in his speech that under the leadership of party organizations the Moscow organization of the society, depending upon the activities for support, had achieved great and fruitful work and had obtained important results in its activities. It was necessary to state, however, that now some DOSAAF organizations, such as the Ukrainian, Uzbek, Krasnodar, Leningrad, Sverdlovsk, Kostroma, and some others, had caught up with the performance indexes of the Moscow organization, and had even surpassed them in some indexes. To hold their lead in the society in the future, the Moscow organization of the DOSAAF and its activists would have to increase the tempo and the quality of their work in all ways, and to keep up with the demands of life.

The head of a sector of the Moscow City Committee of the CPSU, S. A. Kosovskiy, spoke at the conference. After noting the great work done by the Moscow organization of the society, he stated that they would not be satisfied with the results achieved. He emphasized that it was essential to raise the level of organizational work, widely to develop socialist competition for the further enhancement of the activities of the society, and to mobilize the wide resources of society activists for fulfilling the accepted obligations. Comrade Kosovskiy stated that all measures should be taken to see that the Moscow organization would be among the advanced organizations henceforth and would take a leading place in the society.

Marshal of the Soviet Union S. M. Budenny, member of the presidium of the Central Committee of the DOSAAF, gave a speech warmly welcoming those present at the conference.

The conference unanimously adopted a resolution in which the routine tasks of the Moscow DOSAAF organization were defined.

A plenary meeting was held by the newly elected Moscow City Committee of the DOSAAF. A. Sergeyev was elected chairman of the city committee, L. Rozov and L. Oshurkov deputy chairmen, and Yu. Fortunin secretary of the city committee of the Komsomol, was elected deputy chairman.

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UNDER THE BANNER OF CRITICISM OF SHORTCOMINGS
(DOSAAF CONFERENCES)

(Following is a translation of a newspaper article, the three sections of which are by P. Govorov (Instructor of the Yakutskaya Republic Committee of DOSAAF), R. Simkhovich, and M. Zeynalov (Instructor of the Nakhichevanskaya Oblast Committee of DOSAAF), respectively, in Sovetskiy Patriot (Soviet Patriot), 13 March 1960, page 2.)

The fourth Republic Conference of the DOSAAF of Yakutskaya ASSR has been held. The chairman of the republic committee, P. Yofimov, gave a report.

It was noted at the conference that under the leadership of the oblast party organization, the members of the society had put more life into their activities, a number of the rayon and primary organizations had begun to work in a more interested and constructive manner, replenishing their material base, and there were more study circles and sports teams. Many Komsomol workers had turned to leadership of DOSAAF staffs.

However, there are still many shortcomings in the activities of the republic organization. The tasks in respect to training technical cadres and sportsmen have not been fulfilled from year to year and the work of setting up a materiel base is weakly conducted. The radio sharpshooter, and automotive-motorcycle clubs in the republic have not become real training centers for training sports cadres, DOSAAF instructors, and judges.

The republic committee is not showing the proper initiative in establishing amateurs' clubs, and is doing little to enlist DOSAAF activities in carrying out sports measures. Training courses for drivers have been opened in primary organizations of the DOSAAF in Ust'-Mayskiy, Bulunskiy, Verkhoyanskiy, and other rayons, but the necessary textbook base and instructors are lacking. As a result, the GAI (Glavnaya Avtomobil-naya Inspektsiya--Main Motor Vehicle Inspection?) has registered only 11 of the 27 courses formally opened.

The participants in the conference criticized the republic committee for poor work in promoting the growth of the society. In the republic only about 14 percent of the adult population belong to the DOSAAF. Only one third of the Komsomols of Yakutia are members of the DOSAAF. Many of the enterprises, institutions, and educational establishments, kolkhozes, and sovkhozes have no primary organization

The plan for members' dues was fulfilled only 45 percent last year.

Instability of cadres was noted. In 1959 alone, 25 rayon committee chairmen in 14 rayons were replaced, as were 38 workers on the staff of the republic committee. This is explained first of all by the fact that the leaders of the republic committee do not show any interest in the cadres and do not develop them on practical work.

It was also noted at the conference that the republic committee of the DOSAAF and city and rayon committees have not shown the necessary initiative in bringing problems connected with mass defense work before the party, labor union, and Komsomol organizations, and soviets they have asked little support from the society activists, and in a number of places they have violated the principles of collective leadership.

The conference acknowledged that the work of the Yakutskaya Republic Committee of the DOSAAF was unsatisfactory and adopted a resolution directed toward the radical improvement of all activities of the organizations of the society. The conference approved the valuable initiative of the Vilyuyskiy DOSAAF people who had accepted increased obligations in respect to training technical specialists. It was resolved that special brigades would be set up in every rayon committee and in kolkhoz and sovkhoz organizations of the DOSAAF to check the status of trucks, combines, tractors, and other agricultural equipment and to eliminate all cases of disrepair.

Stavropol'

Problems connected with socialist competition held the center of attention among the delegates to the conference of the Stavropol'sk Kray organizations of the DOSAAF. It was emphasized in the speech made by the chairman of the kray committee, K. Popov, and in other speeches that the competition of staffs of the society announced by the kray committee of the DOSAAF jointly with the National Economic Council (sovnarkhoz), the Administration of Agriculture, and the Department of Public Education had aroused great enthusiasm for mass defense and sports work. The kray organization of the DOSAAF grew by tens of thousands of persons in just a year and developed 19 masters of sports and more than 3,000 ranking members. The obligations in respect to training technical cadres were fulfilled successfully.

While noting some progress, delegates Burnshteyn, Dotsonko, Bronevoy, Torokhov, Yartsev, and others criticized the kray committee of the DOSAAF for weak assistance to the rayon committees in setting up material-technical bases and in improving training and sports work.

The delegates to the conference warmly approved the call of the Krasnodar members to competition and accepted socialist obligation.

Nakhichevan'

The oblast conference of the DOSAAF of Nakhichevanskaya ASSR was held here. In discussing the report made by the chairman of the

oblast committee, Abdullayev, the participants in the conference noted the growing authority of society organizations among the wide masses of the workers. There are no longer any enterprises, institutes, kolkhozes, sovkhozes, RTS (Remontno-tekhnicheskaya stantsiya--Machine repair station), or schools without society staffs. More than one third of the DOSAAF members are studying in various study circles and sports teams.

Akhundov, chairman of the primary organization of the Kolkhos-imeni, G. Akperov of Nakhichevan'skiy Rayon, Asadov, chairman of the Norashonskiy Rayon Committee of the DOSAAF, Samedov, secretary of the oblast party committee, and others spoke in the debate on the report.

The conference resolved to increase the training of technical cadres by three times over the 1959 level, to build firing ranges in every rayon center, to recruit the entire adult population into the society, and to ensure the GTO norms for young people.

- END -

ON THE TRUE PATH

KALININGRADSKAYA OBLAST DOSAAF CONFERENCE

(Following is a translation of a newspaper article by a DOSAAF correspondent in Sovetskiy Patriot (Soviet Patriot), 17 February 1960, page 2.)

The Kaliningradskaya Oblast Conference of the DOSAAF proceeded in a businesslike manner with great activity.

The chairman of the oblast committee of the DOSAAF, P. Polomov, noted in his report: "During the last two years our organization has achieved some improvement in its activities under the leadership of the party organs, and with the active cooperation of soviets, Komsomol and labor union organizations. Many staffs of the society are successfully training DOSAAF members in technical specialties. This year we are going to train drivers, tractor drivers, radio operators, and motorcyclists on a level almost twice that of 1957. More than 10 percent of the members of the oblast organization are being trained in technical study circles and in courses.

Sports work is being more and more widely developed in the oblast. During the period covered by the report, more than 2,300 individual contests were held, and the number of participants in them doubled. Thousands of sportsmen have received sports ranks. The first masters of sports have appeared in the ranks of the sportsmen of the oblast. Depending on numerous society activities for support, many committees have developed varied and interesting propaganda work among the workers. All this has helped the oblast organization of the society to achieve its first positive results in fulfilling the resolutions of the Fourth All-Union Congress of the DOSAAF, to increase its ranks by one third, and successfully to fulfill the plan for collecting membership dues.

The chairman's report and the speeches made by the delegates showed most obviously that the Kaliningradskaya Oblast organization of the DOSAAF is on the right path. The center of attention of the conference was held by problems of the further improvement of the many-sided DOSAAF work, improving its quality, and strengthening the ties with the national economic tasks determined for the oblast.

Daily party guidance is the foundation of positive results in the work of the DOSAAF organizations. Many of the speakers cited clear examples of how formerly lagging DOSAAF staffs had speeded up their

tempo, improved the quality of their work, and had become advanced through the watchful and attentive attitude of the party organizations.

The chairman of the Tsentral'nyy Rayon Committee of the Kaliningrad (city) DOSAAF, Comrade Tupikov, stated at the conference: "We feel constantly the attention and help of the rayon party committee in our activities. A meeting of activists held recently in the rayon was attended by about 600 party, soviet, and economic leaders, and numerous representatives from public organizations. Problems of the work of the society are regularly discussed at seminars of the secretaries of primary party organizations which are held by the rayon committee of the CPSU, and exchanges of experience of the party leadership with the DOSAAF staffs have been organized. Party committee and the bureau have begun to listen more often to the reports of the committee chairmen of the society and have increased their demands on them.

Kaliningrad is a city of fishermen. The ships assigned to this port make voyages over the distant waters of the northern and southern Atlantic, and their red pennants are well known in European, African, and American ports. Comrade Polyakov told the delegates of the great and fruitful work of DOSAAF organizations on fishing vessels of the Administration of Fishing Expeditions.

He stated: "Up to 70 percent of the crew personnel on our ships are members of the DOSAAF. On the floating base (playbaza) Ingul, and the tanker Orsk all the workers are members of the society."

Delegates Cherneko, Kirichenko, Nagovitsyn, and others told of the first positive results in the work. All of them emphasized that these results are the direct consequence of the intensification of organizational work by committees and society activists among the masses of society members.

While noting an improvement in the work of the oblast committee of the DOSAAF, a number of delegates also criticized those workers who did not display initiative, who had little interest in improving the quality of the work of the rayon committees and primary organizations and who did not make adequate use of the resources of the society activists. Thus, the chairman of the Svetlogorsk City Committee of the DOSAAF, Comrade Red'ka, rightly criticized the oblast committee for paying insufficient attention to propaganda work and for poor generalization and dissemination of positive work experience.

The chairman of the primary organization of the society in the "Marshal'skiy" Sovhoz of Gur'yevskiy Rayon, Comrade Koval', spoke of inadequate help extended by oblast committees to agricultural organizations.

A number of the participants in the conference expressed criticism of the system for training the population in civil air defense. It was noted in particular that many civil air defense programs had been published, they duplicated each other, and some sections of the programs were so complicated that it was impossible to work them

out under the conditions prevailing in the primary organizations.

The secretary of the oblast committee of the Komsomol, Comrade Smirnov, told of strengthening the ties in the work of Komsomol and DOSAAF organizations. He emphasized that the Komsomol and the DOSAAF could do still more together. In particular, it was now necessary to put into effect a number of measures for training technical specialists from among rural youth.

Comrade Smirnov stated that the Komsomol will give the DOSAAF organization the most active assistance in establishing material bases in primary organizations and rayons.

Member of the Presidium of the Central Committee of the DOSAAF, G. Shatunov, noted in his speech before the conference that the Kaliningradskaya Oblast organization of the society had accomplished much work. However, it would have to do much more if it were to become one of the leaders. The conditions are favorable, he said, and it is to be hoped that the DOSAAF committees will, with the active participation of the society activists, act in such a way that the Kaliningradskaya Oblast organization will win one of the first places in the Russian Federation.

M. Kudikin, secretary of the Kaliningradskaya Oblast Committee of the CPSU, spoke at the conference. He emphasized that the oblast organization had accomplished much, but that the big plans outlined for the future would require further mobilization of the activists' resources for successful fulfillment.

Comrade Kudikin stated: "The Oblast Committee of the DOSAAF must direct its attention to the fact that some DOSAAF staffs in the oblast have obtained poorer results from their work than others under equal circumstances. It is the task of the Oblast Committee of the DOSAAF to aid lagging rayons, and to pay particular attention to the rural rayons."

Numerous guests, including all the secretaries of the rayon committees of the Komsomol of Kaliningradskaya Oblast, also took part in the conference.

P. Polomov was unanimously elected chairman of the oblast committee and S. Tomakov deputy chairman at the plenary meeting held by the newly elected Kaliningradskaya Oblast Committee of the DOSAAF. The secretary of the oblast committee of the Komsomol, A. Chibisov, was elected part-time deputy chairman of the oblast committee of the DOSAAF.

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WORK HAND IN HAND

(Following is a partial translation of a newspaper article by N. Mesyatsev, First Deputy Chairman of the All-Union Society for the Dissemination of Political and Scientific Knowledge, in Sovetskiy Patriot (Soviet Patriot), 28 February 1960, page 1.)

The society (for the Dissemination of Political and Scientific Knowledge) faces big tasks in the fields of propaganda of fighting traditions, military-history, and technical studies. This work must be conducted in close businesslike contact with organizations of DOSAAF. The firmer this contact, the more fruitful the work.

Many republic societies, kray, oblast, city, and rayon departments, and groups of the Society have established businesslike contact with DOSAAF organizations and have accumulated considerable experience in joint fruitful activity on propagandizing military-history and technical studies among the widest masses of the workers of cities and villages.

In the Ukraine, in the Armenian and Azorbaydzhan SSR's, and in Moskovskaya, Gor'kovskaya, and other oblasts, organizations of the All-Union Society and committees of DOSAAF jointly hold lectures and evening meetings devoted to our country's Communist Party, its wise policy, fulfillment of the great seven-year program of Communist construction, and the heroic traditions of the Soviet people and its armed forces. They popularize technical aspects of sport, create lecture bureaus and film lecture bureaus in clubs and primary organizations of DOSAAF, jointly send out lecturers, and carry out many other interesting measures.

The lecture bureau of the republic committee of the DOSAAF and the Baku Department of the Society is working well in the Dissemination of Political and Scientific Knowledge. DOSAAF members have heard more than 100 interesting lectures: "Defense Against the Atom Bomb," "Means and Methods of Radar Reconnaissance," "Atomic Energy for Peaceful Purposes," "Technical Progress in the USSR," "The Image of War in Soviet Art," and others.

Sending agitation brigades into rural rayons is an interesting form of joint activity. Last year the Arkhangel'skaya Oblast Committee of the DOSAAF and the oblast department of the Society organized trips by agitators and agitation trucks into Kholmogorskiy, Vinogradovskiy, Krasnoborskiy, and other rayons of the oblast. DOSAAF propagandists Fedulov and Vorob'yev and members of the society Varakin and Kolodin

gave reports and talks devoted to the 21st Congress of the CPSU and the resolutions of the June Plenum of the Central Committee of the CPSU. They explained the problems of civil air defense to the population in words which were easy to understand. They were heard by thousands of workers from the kolkhozes and sovkhozes. They showed films and newsreels: "Man with a Rifle," "We Men From Kronshtadt," "Young Combatants," "Immortal Youth," and others.

One could cite many examples of joint activities of organizations of the Society and the DOSAAF.

Unfortunately, organizations of the Society and the DOSAAF often work in a disconnected manner, at cross purposes; this frequently leads to parallel work, to lowering the ideological level of propaganda and a lack of what is most essential in it--reality, ties with life, and with the tasks of communist building.

Thus, for example, the Novosibirskaya Oblast organizations of the All-Union Society gave more than 4,000 lectures and reports last year. However, the speeches given by the lecturers were not organically connected with the practical tasks of the DOSAAF organizations and did not have any important influence on their work. The Novosibirskaya Oblast organization of the DOSAAF continued to recruit workers into its ranks in a weak manner and did not develop real training of technical cadres in accordance with the resolutions of the Third Plenum of the Central Committee of the DOSAAF. A similar situation exists in Moldavia, and in Omskaya and Ryazanskaya Oblasts.

The joint decisions recently adopted by the Presidium of the Central Committee of the DOSAAF and the Presidium of the Board of the All-Union Society for the Dissemination of Political and Scientific Knowledge will certainly facilitate the activization of our joint efforts.

Further strengthening of the propaganda work of the organizations of the society and the DOSAAF, raising its ideological level, and solicitude for variety and clarity of its forms require constant, business-like liaison and systematic joint activities.

According to the decision of the Presidium of the Central Committee of the DOSAAF and the Presidium of the Board of the Society, there is much interesting and useful work to do among the masses of workers, particularly among the youth.

It will be proper jointly to develop the themes of lectures, reports, and talks, and to use combined forces to hold lecture evening meetings with war veterans, to go on trips with agitation trucks and excursions to battlefields, and to practice literary criticism of works which reflect the glorious traditions of our armed forces and the high moral make-up of Soviet fighters.

It will be necessary to arrange series of lectures propagandizing technical types of sports in the lecture halls of the Society for the Dissemination of Knowledge, in factory and rural clubs, in houses of Defense, and in DOSAAF clubs, and to make special documentary films for this purpose.

It is essential to make use of accumulated experience in propagandizing technical knowledge, to carry out this work systematically, widely to generalize and introduce into practice the new things that arise in joint propaganda work.

Propagandists of the society and the DOSAAF are obligated to explain tirelessly to the workers that when the Communist Party and the Soviet Government made heavy cuts in the army, they did not weaken for a moment their solicitude for the all-around increase in the vigilance and improvement of the armed forces of the USSR. Every DOSAAF organization is pledged tirelessly to improve its noble activities and to indoctrinate DOSAAF youth by examples of the heroic service of Soviet people performed for their motherland.

Propaganda of military history and technical knowledge must inculcate in millions of workers and in our splendid youth an ardent love for our glorious armed forces, must reveal their legendary fighting traditions in a clear and vivid manner, and must facilitate the training of the manly defenders of the motherland who are ready to deal a crushing rebuff to any encroachments by imperialistic aggressor

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ISOLATED FROM LIFE

(Following is a translation of a newspaper article by S. Aslezov, special correspondent of the newspaper, in Sovetskiy Patriot (Soviet Patriot), 20 March 1960, page 3.)

An oblast conference of the DOSAAF was held in Tambov. During intermission, chairmen of committees of kolkhoz primary organizations and of rural rayon committees of the society approached the chief of the radio club, V. Semenov, from all sides. Dozens of questions were heard:

"How do we organize study circles?"

"How can we get telegraph keys?"

"How can we open a club radio station?"

Semenov spread his hands wide and answered, smiling: "Unfortunately, we can give you no help at all. The club does not have a materiel base at its disposal."

"How can that be?" asked the delegates indignantly; "This is your job and you are shrugging it off."

"The club is busy training radio operators," Semenov replied calmly. "The rest is unimportant."

"You people are indifferent," remarked somebody.

That hit the mark. The workers of the club are avoiding development of radio sports in the villages.

"What a job we had organizing radio study circles!" said the chairman of the DOSAAF primary organization in the Kolkhozimeni Lenin of Kirsanovskiy Rayon of Tambovskaya Oblast, Reserve Officer and Communist Georgiy Vasil'yevich Shirkhorin. "We had money to buy equipment. We went to the oblast committee of the DOSAAF for keys, and they refused us. We turned to the radio club and the result was the same. Somewhere or other we did find old keys and we are now conducting classes. Twelve DOSAAF members are studying in the radio club. A former Navy man, Radioman Second Class Kirill Savkin, a Communist, is leading them. Former military radio operators--the Communist Vladimir Morkushkin, the Komsomol Aleksey Zubekhin, and others--are practicing regularly. It is possible to open several shortwave and UHF stations on the kolkhoz. Those who are now studying in the study circle will operate them. Not just 12 persons, as now, but many dozens of persons can engage in radio sport on the kolkhoz. Unfortunately, not one of the radio club instructors, to say nothing of the chief, has stayed with us or offered practical aid to radio amateurs."

The very same claims were expressed by these rayon committee chairmen of the DOSAAF: Izberdoyevskiy Rayon--N. Kholin, Muchkapskiy Rayon--V. Chernyayev, Rasskazovskiy Rayon--V. Sarloyskiy, and others.

An inattentive attitude to the demands and needs of rural radio amateurs will lead to serious gaps in the work of the club. There are 32 radio stations in Tambovskaya Oblast. Only five of them are in rural localities, while not a single kolkhoz or sovkhos of the oblast has any amateur radio stations.

Last year the radio club planned to open 20 radio stations, and 15 received permission to work on the air. Some time passed and 9 out of the 15 radio stations were closed.

"There are no parts, there is no space," said the chief of the radio club, Semenov, making excuses for himself.

There is a certain amount of truth in this, but the main reasons are to be found in another direction--in the unwillingness of the workers of the club, including Comrade Semenov, to develop mass sports work and to expand the number of amateur radio stations. It is sufficient to state that the chief of the club does not even know whose stations have been opened and their present status.

We asked Comrade Semenov to tell us where to go to become familiar with the work of rural radio operators.

"Go to the Gorel' Middle School. There should be a radio study circle there," replied the chief of the club.

And so we went to the school. We talked with the committee chairman of the DOSAAF primary organization, Ivan Prokof'yevich Savinkov.

"A radio club? Yes, we had one last year. Best of all, we even built an ultrashortwave station. But now everything has fallen to pieces. The set is locked up in a cabinet," said the chairman.

"Why?"

"We got tied up in paper work. The boys cooled off toward studying amateur radio work, and the study circle ceased to be."

It was found that the radio club had not even noticed this. But, you see, it would have been possible to have selected a slate of candidates for chief of the radio station and to have worked for rapid completion of paper work for the right to go on the air.

We left the school to go to the Kolkhozimeni S. M. Budonnyy of Gorel'skiy Village Soviet. We were interested in how many radio amateurs there were here.

"Not a single one," declared the chairman of the kolkhoz, A. Semenov, and the deputy secretary of the Party Bureau, V. Meshcheryakov. "Nobody ever came from the radio club."

But the club is inactive. There are only about 200 members. Some sections, in particular the design section, are not in operation. This is one of the reasons why there are so few amateur radio stations in the Tambov area. The radio club is empty in the evenings. It is characteristic that the club is closed Saturday evenings when people have more free time. It works from 9 a. m. to 3 p. m. Further comments

are unnecessary.

Lately the council of the club, which is headed by the experienced shortwave radioman, N. Kolosnikov, and where the question of developing radio sport in the villages has been discussed a number of times, has taken no interest in the needs of radio amateurs on kolkhozes and sovkhozes and has not offered them practical help.

On one occasion an Instructor of the Tambovskiy Rayon Committee of the Komsomol, Viktor Semiletov, and the committee chairman of the DOSAAF primary organization of the "Obshchiy trud" Kolkhoz, Viktor Surkov, came to the radio club. They stated that there were many radiomen who had returned from military service now on the collective farm. They wished to improve their skill and to build amateur radio stations. A study circle had been organized, and classes were in progress. The skilled help of the club was all that was needed.

One might expect that the chief of the club would be interested in the kolkhoz circle and send an instructor there. However, nothing of the sort happened.

"Here we have gone there three times and all in vain. How to make an end of these trips, we don't know," complained the comrades from Tambovskiy Rayon.

Well, how do the leaders of the Tambovskaya Oblast Committee of the DOSAAF react to all this? Unfortunately, they are indifferent. Questions in regard to developing radio sport in rural localities have not been raised once in the presidium, and the work of the radio club has not been discussed.

* * *

Twenty-five thousand amateur radio stations are to be opened in our country in 1962. The majority of these will be in rural localities. DOSAAF radio amateurs are now working to fulfill this task.

There are many difficulties in the work of rural radio amateurs. The chief one of these is the lack of parts for sale which are essential for building amateur radio stations. It is difficult to get them in cities and still more complicated in rural localities. Rural radiomen are presenting serious claims to the section of radio training and also to the Administration for the Supply of Technical Equipment of the Central Committee of DOSAAF, who are largely responsible for the supply of radio amateur supplies. They are awaiting the mass release of parts kits for building shortwave and ultrashortwave stations, and also factory-made amateur receivers and transmitters.

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AUTHORS OF GOOD WORKS

NOTES ON THE MOSKOVSKAYA OBLAST DOSAAF CONFERENCE

(Following is a translation of a newspaper article by V. Vasil'yev in Sovetskiy Patriot (Soviet Patriot), 20 March 1960, page 2.)

The Moskovskaya Oblast organization of the DOSAAF is one of the leaders in our society. It has been awarded the highest award, the Honored Badge of the DOSAAF of the USSR, for its progress in mass defense and sports work.

Who, then, are the authors of this progress? The society activists. It is precisely because many city and rayon committees have united around them hundreds and thousands of activists that they have successfully overcome difficulties in their work and are mobilizing people and improving their work.

Who, then, are these activists? They are first of all the chairmen and members of the committees and the chairmen and members of the inspection commissions. There are more than 40,000 of them in the oblast organization.

They are the DOSAAF instructors in different types of mass defense and sports work. They are also numbered in the tens of thousands.

It is those thousands of people--genuine enthusiasts for mass defense and sports work; people who have carried military and technical knowledge to the masses, calling upon them persistently to strengthen the might of our motherland; patriots who unselfishly give DOSAAF work hours of their free time and leisure--who have created all that the oblast organization can rightfully take pride in today.

The chairman of the oblast committee, Comrade I. Murav'yev, noted justifiably in his report: "The DOSAAF activists constitute the golden capital fund of our organization and of our defense society."

That is why the words rang out so penetratingly when the speaker expressed cordial thanks to the society activists, the honored toilers in mass defense and sports work, in the name of the delegates to the Fourth Moskovskaya Oblast Conference.

The names of many activists were called out from the speaker's stand. Here are a few of them:

Ghremushkin, Anatoliy Potrovich. He is a Communist, a leading engineer in one of the enterprises of Balashikhinskiy Rayon. He has been in the ranks of our society for more than 30 years. He heads the

plant sharpshooters section. In just the last two years more than a hundred sports sharpshooters have been trained under his guidance.

Bychkov, Leonid Nikiforovich. Designer. He heads the section on aviation sports of the Mytishchinskiy Rayon Committee of the DOSAAF. He alone trained 27 DOSAAF instructors for parachute sport, 37 for aviation model making, and 11 instructors for gliding sport.

Kochetov, Ivan Ivanovich. He has headed the committee of the primary DOSAAF organization of the power section of the Northern Railroad for ten years without relief. Almost all workers and clerical workers of the section are members of the society. The organization has trained 121 drivers, 227 motorcyclists, and 211 ranking sportsmen, and 157 radiotelegraph operators. Comrade Kochetov sets a personal example in this work. He is a driver, third class, a motorcyclist, and a radiotelegraph operator. The organization has built a firing range with its own efforts, it has acquired three motorcycles and five small bore rifles, and has equipped classes in civil air defense, radio, and auto mechanics. The staff is doing a great deal of agitation and propaganda work. The organization of the power section has been awarded a testimonial by the oblast committee of the DOSAAF for the progress it has achieved in mass defense work and training the population in civil air defense.

Novikov, Vasily Mikhaylovich. Reserve major general. Chairman of a plant committee of the DOSAAF. The plant organization has become a leading organization under his leadership. It has a 50-meter firing range; the staff is training drivers, motorcyclists, parachutists, ranking sharpshooters; and 70 percent of the people working at the plant are members of the society. Almost all the workers have passed the norms of the "Ready for Civil Air Defense," First Degree. In October of last year an amateur sea club was opened at the plant.

And with great pride Comrade Glazkov, the delegate from the Shatura organization, called out the names of his activists: "Tarnovsk, Klinkov, Gromov, Yezhov, Zuyov.... Yes, you can name all our fighting activists! It is through their efforts that our Shatura organization has been raised from a lagging one to the level of the advanced organizations."

Among the activists of the oblast organization we see the secretary of the Perovo City Committee of the Party, V. I. Kozlov, and the chairman of the Zhukovskiy City Executive Committee, A. I. Kovalenko, awarded the Honor Badge of the DOSAAF of the USSR, the chairman of the factory committee of the trade unions, K. I. Dubrovskaya, and reserve officer S. G. Kuklev.

It must be noted that the Moskovskaya Oblast Committee knows how to support the initiative and properly value the efforts of its activists. In the period between the last two conferences, 15 persons from the oblast were awarded the Honor Badge of the DOSAAF of the USSR, 1,203 persons were awarded the badge "For Active Work," and 1,272 persons received certificates from the oblast committee and the Central Committee of the DOSAAF.

Even though the oblast organization did achieve notable results the delegates to the conference spoke more of what must be done to ensure further improvement in the work. They spoke of unused reserves and possibilities, and of serious shortcomings in the work of a number of committees.

For example, let us take the growth of the ranks of the society. At present, the oblast organization has unified in its ranks about 40 percent of the adult population, but a great deal less in some rayons. Thus, in Sorobryano-Prudskiy Rayon 16 percent of the adult population are in the DOSAAF, in Shakhovskiy Rayon 18 percent, and in Kotoshinskiy Rayon 20 percent.

One of the decisive conditions for successful progress by the DOSAAF staffs is to improve the work of all the committees with the DOSAAF activists and replenishing their numbers with new people. This was the unanimous opinion of the delegates to the conference. The resolution adopted by the conference states: "The oblast, rayon, and city committees of the DOSAAF must improve their work with the DOSAAF activists in all groups, especially their work with the chairmen of the primary organizations, and must generalize and disseminate the work experience of the advanced staffs."

Well said!

In the photo (left to right): A. Mchledze, N. Nikitin, N. Knyazov, G. Aristov, and I. Farberov, delegates to the Moskovskaya Oblast Conference of the DOSAAF, and activists of the society.

Photo by P. Gorolov.

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PLUSES AND MINUSES

DOSAUF REVIEW OF SPORTS WORK

(Following is a translation of an article written from Chelyabinsk by a traveling group of the newspaper Sovetskiy Patriot (Soviet Patriot), 20 March 1960, page 3.)

The primary DOSAAF organizations in the tractor and metallurgical plants are the largest in Chelyabinsk. These defense staffs are connected by a long-standing friendship. This is the first year that they have competed against each other. Socialist competition between them developed on a particularly large scale following the Third Plenum of the Central Committee of the DOSAAF of the USSR, when the tractor workers and the metallurgical workers began the struggle for further development of technical types of sport.

How, then, do these organizations fulfill their socialist obligations?

At the gates of the Chelyabinsk Metallurgical Plant there is a large display stand. It contains photographs and colored diagrams which tell of the progress made by the plant's DOSAAF organizations in developing technical sports. Visual agitation work is widely developed in the departments of the plant, too. Slogans and placards calling upon the young people to master technical types of sports are suspended in the most conspicuous places.

The purposeful agitation helps the DOSAAF members of the plant successfully to develop technical sport and to improve the skill of sportsmen.

Thousands of metallurgical workers entered the ranks of the society after the Third Plenum of the Central Committee of the DOSAAF. The committee recruited them into sports activities. Now, a third of the members of the organization are studying in study circles, in classes, and in sports teams. The number of society members who are mastering technical specialties has increased markedly over the last year. Many have won sports ranks.

The motor section of the technical-sports club is now uniting scores of amateurs in this type of sport and is working every day to improve their mastery. Just recently plant motor sportsmen had a cross-country race, made a trip along the Urals, and participated in city competitions. Now the plant has three motorcycle teams. Seven of the members fulfilled the norms of sportsman, third class.

... The departments of the plant have nine firing ranges. Sharpshooting has become a genuine mass sport at the plant. It is sufficient to state that more than 5,000 metallurgical workers were up on the firing line in 1959. But how many are ranking sportsmen? Last year only 90 sharpshooters of the third and 4 of the second class were trained.

"Only a few ranking members," said the chairman of the plant committee of the DOSAAF, Comrade Fradkin, agreeing with us, "but we'll get target rifles, then things will be better."

But, is it true that there are no target rifles or not enough cartridges at the plant? They are available, and in oversupply. Consequently, the reasons for the poor growth in sports mastery do not lie in the material base, but in the system of training sharpshooters.

The presence of an extensive network of firing ranges permits concentrating the training of sharpshooters in departments in the immediate vicinity of the working places of the society members. Here, after passing the training course, they could also pass the norms of the first class. Unfortunately, the departmental firing ranges are not centers of sports work in the plant. Persons without training go out to the firing lines, use up a lot of cartridges, and get low scores. Passing the norms for sports ranks has not been organized in the departments. The plant technical-sports club has been granted a monopoly of this right.

The training of driver cadres made progress over last year. It has tripled. Now 120 drivers and 60 motorcyclists are studying in the training classes of the plant technical-sports club. But, the classes of the radio club are empty here. The DOSAAF committee has inexcusably delayed the recruitment of young people into courses for radio repairmen and radiotelegraph operators. It is difficult to say when studies will begin. Time is being wasted and the beginning of the new study year has been postponed indefinitely.

Such are the pluses and minuses in the work of the plant DOSAAF organization. It is to be hoped that the staff will struggle still more persistently to fulfill its socialist obligations.

* * *

The struggle for the further development of technical types of sport has become the chief trend in the work of the DOSAAF members of the Chelyabinsk Tractor Plant. During the last year, 450 tractor drivers, 250 drivers, 120 motorcyclists, more than 100 radiomen, and other specialists were trained here.

Nevertheless, the plant DOSAAF people have not fulfilled their obligations. The tempo of development of technical types of sport is obviously lagging behind the possibilities present in the plant. The blame lies in the first instance with the DOSAAF committee which weakly guides its amateur clubs, classes, and study circles.

Let us take the automotive club. It has been essentially reduced to ordinary courses. Here you do not find even traces of sports work. And how can you even begin to talk about full-blooded sports

life when the club has no council?

"Sports are lacking at our place," acknowledges the leader of the club, Sergey Okunov.

He is a new worker and it is particularly necessary for the society to give him assistance. Okunov has repeatedly asked the DOSAAF committee to elect a council, but the question is still resting there.

In the meantime, matters in the club are arousing concern. Let us take just one example. Of the 120 motorcyclists trained last year, not one is a member of the club, to say nothing of their participation in sports work. It is no accident that there are only two ranking motorcyclists in the plant, but even these persons did not acquire their ranks in the plant club. And yet the club has at its disposal everything necessary to develop sportsmen of high skill. The club has 16 motorcycles, half of them sports cycles. Unfortunately this equipment is not being used to improve the mastery of the numerous motor sports amateurs.

Parachute sport started to be widely cultivated last year. Study circles were set up in the departments in which about 150 young metallurgical workers were being trained. Time went by, the theoretical part of the training program came to an end, and the members of the study circles along with the instructors waited for the beginning of jumping with impatience.

The waiting has been extended to this very day. The committee did not forward a request to the oblast air club to send a plane in time, so the plant parachutists were deprived of a chance to make jumps.

Sharpshooting sportsmen are also in difficult straits. The plant has just one firing range for the sharpshooters' club. And it, too, is in an unenviable state. The chairman of the plant committee of the DOSAAF ordered that the club be used for winter storage of motorcycles and gasoline drums. All this property is now an encumbrance about the firing line, arousing the rightful indignation of the sportsmen.

"It is difficult to learn to shoot accurately in our club," said fitter Ivan Pokazan'yev.

Important shortcomings exist in the work of the radio club. It was established more than two years ago but the number of its members has increased hardly at all in this time. How can it grow when the club is not interested in increasing the skill of its members? Only a handful of them have won sports ranks. For several months the call letters of the club radio station have not been heard on the air. The chief of the club, Comrade Tikhonov is occupied merely with classwork, and forgets about sports work.

Initiative and persistence brings success in any enterprise. The great work done by DOSAAF organizations in training tractor driver is proof of this. Last year the staff turned to the tractor makers with the call: "Those who make tractors should be able to drive them!" The management and the party organizations supported this start.

Numerous study circles were set up in the departments with their aid. Hundreds of workers and engineering-technical personnel took up the studies. All of them completed the work successfully and obtained the specialty of tractor driver. The specialty was soon useful to many of them. A good half of those who had been trained worked at this specialty in the fall on kolkhozes and sovkhoses.

Now, a new and numerous group of tractor makers have started to master the tractor. The network of study circles has been expanded with the aim of training another 500 tractor drivers. The scale on which this study has been undertaken provides vivid evidence of the great possibilities in DOSAAF organizations, their ability and capacity successfully to solve great problems. This makes the gaps and shortcomings permitted in the development of technical types of sport all the more irritating.

The survey team of the newspaper Sovetskiy Patriot consists of Ye. Tkachenko, Master of Sports; A. Ryazanov, DOSAAF Instructor; Yu. Solovko, Master of Sports; G. Mirolyubov, Motor Sportsman, Second Class; I. Plotnikov, correspondent of the oblast newspaper Komsomol'skiy N. Belokur, M. Strelkov, and G. Solivanov, reserve officers; A. Maksimov, correspondent of the Sovetskiy Patriot.

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RECOGNIZE THE SPORTS RIGHTS OF RADIO AMATEURS

(Following is a translation of a newspaper article by E. Krenkel', Chairman of the Presidium of the Federation of Radio Sport of the USSR, in Sovetskiy Patriot (Soviet Patriot), 28 February 1960, page 3.)

In recent years radio sports have enjoyed wide dissemination among Soviet youth. Many thousands of young men and girls are engaged in shortwave and ultrashortwave radio communications and are busy with high-speed receiving and transmitting of radiograms, and also are participating in appropriate "Hunt the Fox" contests. Radio sports began to develop particularly widely after the introduction of the "Unified Technical Sports Classification of Radio Amateurs" by the Central Committee of the DOSAAF of the USSR in 1952.

In the last eight years more than 100,000 radio amateurs have received badges of rank, and 300 of the best have received the honored title of master of radio sport. The names of many masters of radio sport are widely known not only in the Soviet Union, but beyond its borders. Master of Radio Sport Fedor Roslyakov, together with a large group of outstanding Soviet sportsmen, was awarded a government decoration.

The number of different contests, beginning with rayon and city and ending with international contests, is growing every year. In 1959 alone, about 100,000 radio sportsmen took part in 3,068 contests. The international ties of radio sportsmen are also expanding. In the last five years Soviet sportsmen have participated in 18 international contests and won 14 of them.

Radio sports in the different departments have also begun to show development. Last year the first interdepartmental contests were held for radio operators, and also republic contests for radio operators of the river fleet of the RSFSR. The most varied personal contests are becoming more widespread, in the first instance for high-speed radio operators and also for "Hunt the Fox."

The attraction young people feel for radio sports is not accidental. Now, in the age of the atom and the conquest of space, radio engineering and electronics are playing an ever more important role in science, technology, and the national economy. I dare say that there is not a single field in technology and the national economy where radio electronics is not used.

Radio sports activities make it possible not only to study radio engineering and adjoining fields thoroughly, but to make the leisure hours of youth interesting. Interesting competitions in radio

sport develop persistence, steadfastness, and endurance in the participants. In addition, such contests as "Hunt the Fox" help in developing excellent physical hardening, teach running over rough localities, and to hunt out hidden radio stations. The "Field Day" of the ultrashortwave people is a unique tourist trip where, in addition to moving about the locality, it is necessary to be able to maintain the longest radio communications with minimal-power stations.

Starting with all this, one can say with confidence that radio sport should receive all the rights of citizenship. This type of sport, especially on shortwave and ultrashortwave frequencies, has much in common with sharpshooting sport. Sharpshooting sportsmen fire at ranges of 25 to 600 meters, but radio sportsmen have to conduct their "fire" at enormous distances, reaching up to 12,000 to 18,000 kilometers. And such contacts demand great mastery. You see, they have to carry on under conditions of very intense interference from simultaneous operation of several thousands of radio stations, from which they have to select the required correspondent. At the same time, the signals from the required high-frequency station are often weak and are distinguished with great difficulty. But such contacts in contests should not be single ones. It is well known that contests continue uninterruptedly from 6 to 48 hours, and the number of contacts reaches several hundreds. What physical endurance the sportsmen must have, how much persistence and steadfastness they must have in order to maintain these radio contacts under such conditions!

According to the draft of the new norms, one of the requirements for obtaining the title of master of radio sport calls for making 360 radiotelegraphic contacts in 12 hours, or two minutes for each contact, during which it is necessary to exchange a message of 20 - 25 mixed groups with the correspondent.

The many years of experience of the best radio sportsmen show that working with this type of sport not only results in increasing skill, but also develops the will and the ability to endure various difficulties stoically, and promotes physical hardening.

The existing Unified Technical Sports Classification of the DOSAAF in Radio Sport is only a departmental classification. The time is now ripe to include radio sport in the Unified Sports Classification of the Soviet Union and to create conditions for further development of radio sport in our country and for sharply improving sports results.

During the last few years this question has been placed repeatedly before the leadership of the former Committee on Physical Culture and Sport, and in the past, and this year, too, before the Presidium of the Central Council of the Union of Sports Societies and Organizations of the USSR. The participants in the first inter-departmental contests recently set up by the Federation of Radio Sport

of the USSR have petitioned for this. However, the demands of the sportsmen have not been satisfied up to this time.

The radio sportsmen and the public hope that radio sports will be included in the Unified All-Union Sports Classification, that they will be granted the right of full citizenship.

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FOR COST ACCOUNTING IN DOG-BREEDING CLUBS

(Following is a translation of a newspaper article by K. Nemtsov, Senior Inspector of the Central Committee of the DOSAAF, in Sovetskiy Patriot (Soviet Patriot), 16 March 1960, page 3.)

On border patrols and in the limitless spaces of the North, on high mountain pastures and in the Siberian forest--one may always find man everywhere with his trusted friend, the trained dog. Trained dogs help to guard socialist property, to watch kolkhoz herds, to overcome great distances. The majority of these four-footed helpers of man are raised and trained in the service-dog-breeding clubs of our society.

Many thousands of DOSAAF members are dog handlers. From 700 to 2,500 trainers and DOSAAF instructors are united in the Moscow, Leningrad, Riga, Voronezh, Ufa, L'vov, and some other clubs. They do a great amount of work on improving and increasing the number of purebred dogs, and on organizing exhibitions, tours, and contests. Of course, the activities of the clubs would be unthinkable without the help of the DOSAAF activists. The club councils help organize the training of cadres for service-dog breeding.

To promote still further recruitment of the public into leadership of the clubs and for further development of the creative initiative of dog handlers, the secretariat of the Central Committee of the DOSAAF of the USSR adopted a resolution to transfer all staff members of the service-dog-breeding clubs to a cost-accounting system as of last year. This resolution was preceded by a large amount of preparatory work. The new form of organization was widely discussed by activists and club leaders. Their opinion was unanimous--being placed on a cost-accounting basis would be a good thing, and service dog breeding should become still more a mass activity at this new stage of development.

The "Regulations for Service-Dog-Breeding Clubs on a Cost-Accounting Basis" provides that the clubs are to be organized throughout the territory of the RSFSR on authorization by the Central Committee of the DOSAAF of the USSR, and in the union republics by directives of the republic committees. They are to be maintained within the limits of the existing staffs and can be of the first, second, and third classes.

The funds of the service-dog-breeding clubs will consist of membership dues and initiation fees, receipts from registration of dogs and the issuing of pedigrees for puppies, payments for training

also income from paying mass measures.

The committees of the society should give the service-dog-breeding clubs comprehensive assistance from the very first days that they go on a cost-accounting basis. Dog handlers must be assured of quarters and equipped training areas. The directives concerning compulsory registration of thoroughbred dogs in DOSAAF clubs should be issued in a very short time by all the executive committees of the local soviets of workers deputies. Such assistance combined with the creative initiative of the public will render an invaluable service to the further development of service-dog breeding in our country.

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